

2003-2004



Tennessee Department of Education Evaluation and Assessment Division

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#### UNDERSTANDING TCAP ACHIEVEMENT TEST RESULTS

This guide has been prepared to help you understand the TCAP Achievement Test results and assist you in applying these results to improve educational opportunities for your students. These reports are a main source of test information and are helpful in making important decisions regarding instructional needs for classes and individual students.

Before talking with parents/guardians, become thoroughly familiar with the student's test performance. Discussion can often begin by showing the student's actual test reports (Home Report and Individual Profile Report).

Emphasize to parents/guardians that test scores represent achievement in particular areas at only one particular time and must be reviewed together with the student's actual classroom work and other factors. As you review test results with parents/guardians, explain how the results will be used. Emphasize the positive function of test results in helping students learn.

For more information about the TCAP Achievement Test Program, please visit <a href="http://www.state.tn.us/education/mtest.htm">http://www.state.tn.us/education/mtest.htm</a> on the Internet.

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#### INTRODUCTION

Each spring, Tennessee students in Grades 3–8 take an Achievement Test as part of the Tennessee Comprehensive Assessment Program (TCAP). The Achievement Test has fresh, non-redundant test items and is customized yearly to measure the academic basic skills in reading, language arts, mathematics, science, and social studies. Content knowledge, as well as the application of that knowledge in these subject areas, is assessed. The TCAP Achievement Test uses multiple choice questions and has set time limits. There is no passing or failing grade on the test.

The TCAP Achievement Test provides both norm-referenced and criterion-referenced performance information.

### NORM-REFERENCED SCORE INTERPRETATIONS

Norm-referenced information permits the achievement of students to be compared with the performance of a national sample of students. Data is first collected from a sample group, called a norm group. Norm-referenced information is obtained by relating the test performance of an individual or a group to derived scores based on both the normative sample and the scoring method used.

### CRITERION-REFERENCED SCORE INTERPRETATIONS

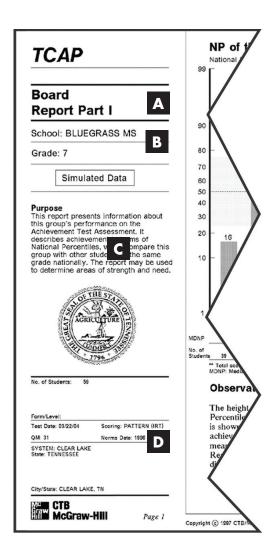
In addition to the norm-referenced test, Tennessee students are also assessed with a criterion-referenced component on the Achievement Test. This new component was implemented in order to comply with federal mandates of "No Child Left Behind."

To interpret criterion-referenced reports, a student's performance is measured according to specific standards or criteria, rather than to the performance of other test takers.

These curriculum standards, as defined by the State of Tennessee, provide objectives for student accomplishment. From these objectives, Performance Indicators were written to describe how the objectives would be measured. On the TCAP Achievement Test, each test item is directly linked to a Performance Indicator. Performance Indicators are clustered into Reporting Categories for the reports described in this document.

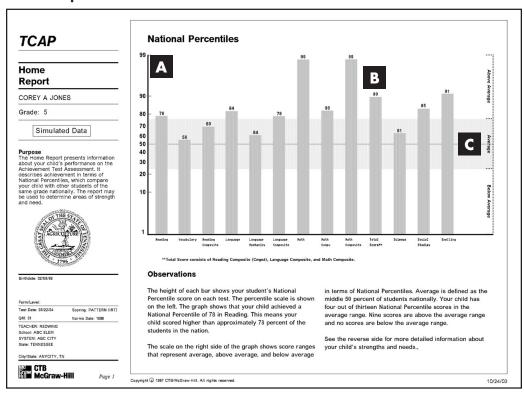
#### FEATURES INCLUDED ON ALL REPORTS

- A Name of report appears in this area.
- This area of the report is reserved for the name of the individual, teacher, school, or system to which the report applies. The content area covered is also indicated.
- Every report contains a purpose statement. The reader is introduced to the reason for the report and how the information may be used.
- The lower part of the left panel gives overall testing information that may be useful for school records. Depending on the report, this information can include the number of students taking the assessment, form identification, special codes, test date, or class, school, and/or system.



### NORM-REFERENCED REPORTS—PHASE I

### **Home Report**

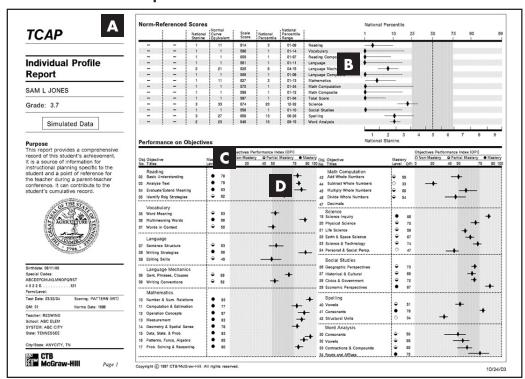


The Home Report is an individual score report that presents test information in a meaningful, easy-to-understand way intended primarily for parents/guardians to help them become more involved in their child's learning.

- The scale on the left side of the graph displays the range of national percentile scores (1 to 99) which are the basis of this report. The student's achievement is compared with that of the national sample of students, upon which the test was standardized. Average is defined as the middle 50 percent of students nationally.
- A shaded bar displays the student's score for each content area tested. The height of each bar is determined by the student's national percentile score for that content area. The actual score is also printed at the top of the bar.
- The gray shaded area, Percentiles 25 to 75, indicates the average range.

The second page of the Home Report (printed on the back of the report) contains additional information about the student's achievement. First is a list of the objectives that the student has mastered satisfactorily. A unique score developed by CTB called the Objectives Performance Index (OPI) determines the level of mastery of each objective. Second is a list of the objectives the student has not mastered, and on which he or she could be given additional instruction. This information can help parents/guardians develop strategies to help improve their child's learning and can help them interact with teachers at parent-teacher conferences.

## **Individual Profile Report**



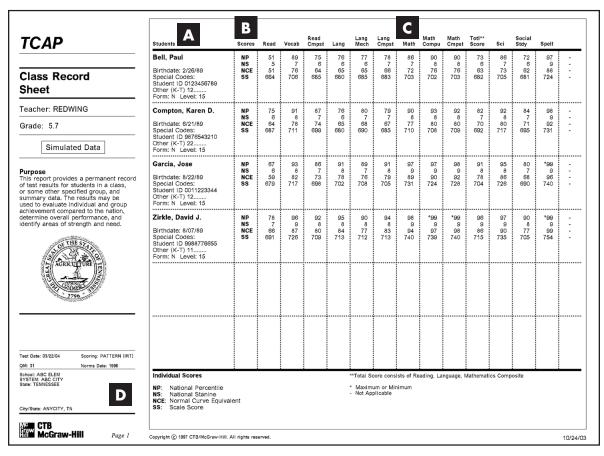
The Individual Profile Report (IPR) shows norm-referenced scores, which compare the student's achievement with the norm group in each content area tested. The IPR identifies an individual student's strengths and needs.

- This section of the report displays the student's norm-referenced scores. The National Percentile (NP) and NP range are always reported. The user may select from scale scores, normal curve equivalents, national stanines and number correct scores.
- The national percentile (NP) and the NP range are shown in the graph in the upperright. The diamond represents the student's national percentile. The bands to the left and right of the diamond (Confidence Band) represents the range where the student would most likely score in a similar test experience. (The narrower the band, the more confidence one can have in the accuracy of the NP range.) The shaded area represents the range of average scores.
- The Performance on Objectives section shows the student's level of mastery of each objective measured by the test using the Objectives Performance Index (OPI). The OPI is an estimate of the number of test items a student could be expected to answer correctly had 100 similar items been taken. The Mastery Level column shows the student's mastery on each objective: a completely filled circle represents mastery, a half-filled circle represents partial mastery, and an open circle represents non-mastery.

# Individual Profile Report, cont'd.

The OPI graph shows the student's OPI for each objective, represented by a diamond, and the associated confidence band, represented by a line extending to either side of the diamond. (The confidence band represents the range where the student would most likely score in a similar test experience. The narrower the band, the more confidence one can have in the accuracy of the OPI.)

### **Class Record Sheet**

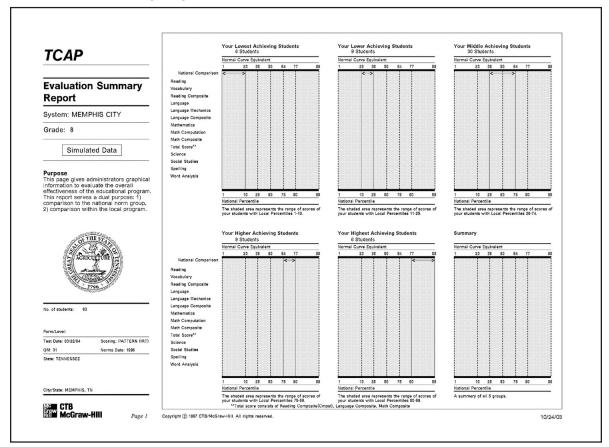


The Class Record Sheet provides a permanent record of test results for students in a class or specified group.

- Students are listed alphabetically to make their names easy to locate.
- As many as six scores may be reported for each student.
- Scores are provided for each section of the test completed.
- Each score abbreviation used in the report is spelled out in this section.

#### NORM-REFERENCED REPORTS—Phase II

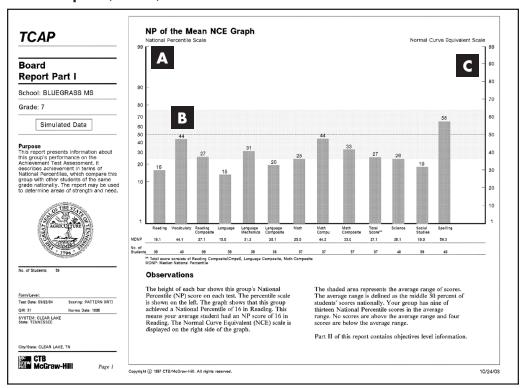
# **Evaluation Summary Report**



Page 1 of the report gives a graphical representation of the overall effectiveness of the educational program and serves a dual purpose: (1) comparison to the national norm group, and (2) comparison within the local program.

Pages 2 and 3 give administrators general information needed to interpret this report. Page 5 provides the numeric data used to create the graphs on page 1 of the report.

## **Board Report (Part 1)**



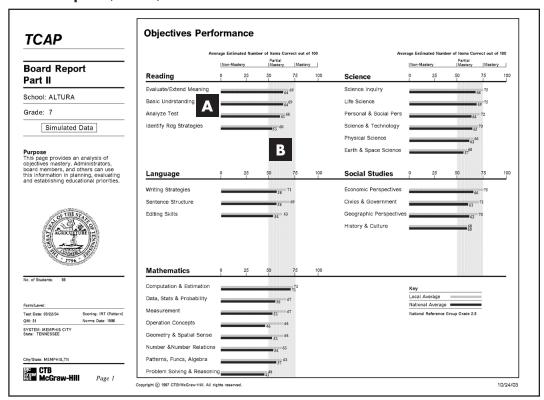
## Board Report Parts I & II

The Board Report provides School Board members and senior administrators with easily understandable group information about student performance in the content areas assessed (Part I) and on instructional objectives (Part II). The Board Report provides useful information for developing educational priorities and making policy decisions.

# Board Report (Part I)

- The range of Median National Percentiles is shown on the left side of the graph. The height of each bar on the graph reflects the group's Median National Percentile (MDNP). The number designation is also shown at the top of each bar. This is the score above and below which half of the local student scores fall.
- For example, the group of students shown on this report had an MDNP in Vocabulary of 44. The MDNP of the norm group was, by definition, 50.
- The scale on the right side of the graph shows score ranges that represent above average, average, and below average performance in terms of Normal Curve Equivalents. Average is defined as the middle 50% of students nationally.

## **Board Report (Part II)**



Part II of the Board Report describes achievement of the group in terms of mastery of the objectives measured by the content area tests. This information adds to the value of the test in analyzing the curricular and instructional strengths and needs of the district.

- The Average Estimated Number of Items Correct out of 100 (Objective Performance Index) is shown for each objective within content areas for the local group as well as for the national norm group. This group of students could be expected to respond correctly to 69 of 100 items measuring the Basic Understanding objective in the Reading content area. The national norm group could be expected to respond correctly to 64 out of 100 items. Both of these are in the Partial Mastery range.
- The scale for Objectives Mastery is divided into three segments as follows:

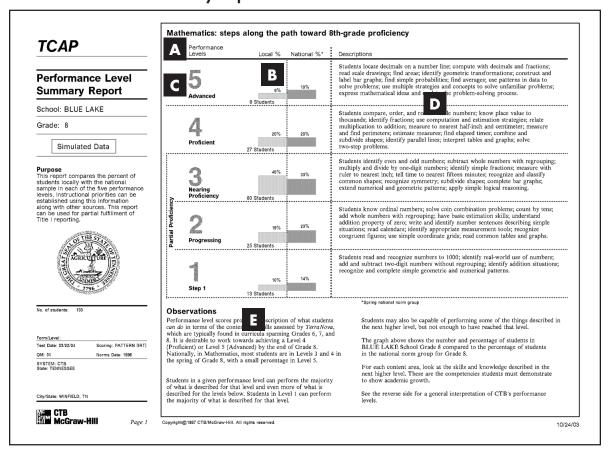
0 to 49 of 100 correct equals Non-Mastery 50 to 74 of 100 correct equals Partial Mastery 75 to 100 of 100 correct equals Mastery

# **Group Performance Level Report**

TCAP	Performance Levels (Grades 3, 4, 5)	Reading		Language		Mathematics		Science		Social Studie	s
Group Performance Level Report	5	No. of Students % Locally % Nationally*	4 7 3	No. of Students % Locally % Nationally*	2 4 3	No. of Students % Locally % Nationally*	4 7 1	No. of Students % Locally % Nationally*	2 3 2	No. of Students % Locally % Nationally*	1 2 2
System: MEMPHIS CITY	Advanced										
Grade: 5											
Purpose This page summarizes the data by performance level and content area. Teachers and program administrators may compare all content areas for one level or all levels within one content area.  No. of students: 63	4 Proficient	No. of Students % Locally % Nationally*	1 2 11	No. of Students % Locally % Nationally*	0 0 10	No. of Students % Locally % Nationally*	0 0 4	No. of Students % Locally % Nationally*		No. of Students % Locally % Nationally*	1 2 10
	3 Nearing Proficiency	No. of Students % Locally % Nationally*	1 2 28	No. of Students % Locally % Nationally*	1 2 22	No. of Students % Locally % Nationally*	2 3 20	No. of Students % Locally % Nationally*	3 5 26	No. of Students % Locally % Nationally*	3 5 32
	Partially Proficient P	No. of Students % Locally % Nationally*	3 5 32	No. of Students % Locally % Nationally*	0 0 32	No. of Students % Locally % Nationally*	1 2 34	No. of Students % Locally % Nationally*	8 13 33	No. of Students % Locally % Nationally*	34 58 31
	Step 1	No. of Students % Locally % Nationally*	51 85 26	No. of Students % Locally % Nationally*	53 95 33	No. of Students % Locally % Nationally*	52 88 41	No. of Students % Locally % Nationally*	46 77 29	% Locally	20 34 25
City/State: ANYCITY, TN											

This report gives the number and percentage of students in the local group who fall into each of the five performance levels within each content area. It also shows the percentage of students in the norm group who fall into each of the five performance levels within each content area. These groupings give the teacher or administrator a basis to compare the performance levels of their students with a national distribution, and help to identify areas of strength and need.

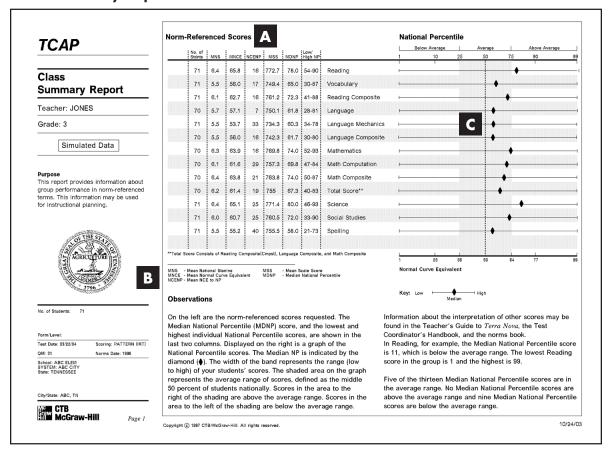
## **Performance Level Summary Report**



The Performance Level Summary Report (PLSR) gives educators standards-based summary information about academic achievement. This report is useful for instructional planning, program evaluation, and Title I reporting.

- The PLSR categorizes achievement within five performance levels, which were determined by panels of experts in a standard-setting study.
- The percentage of students in the local group found in each of the five categories is shown, as is the percentage for the norm group.
- Performance levels range from 5 (Advanced) to 1 (Step 1) and facilitate documentation of performance over a span of grades (e.g., Grades 3–5) rather than a single grade. This enables school personnel to track student academic progress over time.
- Descriptions of the performance levels help administrators and teachers understand what skills and abilities students have attained and what areas students should work on to progress to higher performance levels.
- The Observations section helps teachers and administrators interpret the test results.

## **Class Summary Report**

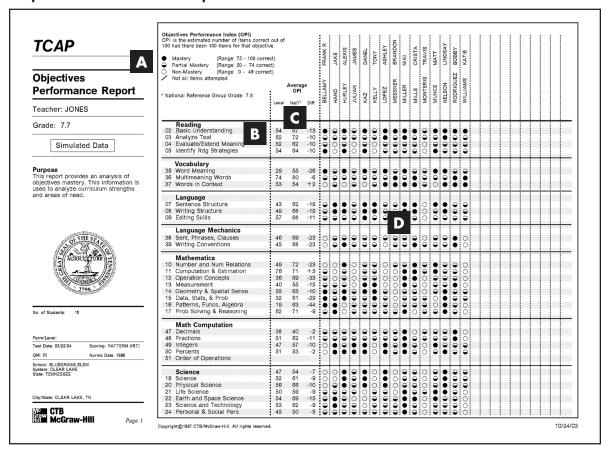


The Class Summary Report provides a snapshot of the achievement of a class or group and presents information about norm-referenced scores.

- The Norm-Referenced Scores section shows the number of students with valid scores in each test section and the averages of those students.
- The key to the abbreviations appears at the bottom of the score area.
- The National Percentiles graph on the right side of the page shows the Median National Percentile represented by a diamond (\*) symbol. The lines to the left and right of the diamond represent the range between the lowest and highest scores of the students in the group. The shaded area designates the average range; that is, the range within which the middle half of the National Percentiles fall (NP 25 to NP 75).

Page 2 provides summary data of test results for students in a class or other specified group. Scores are provided for each section of the test completed.

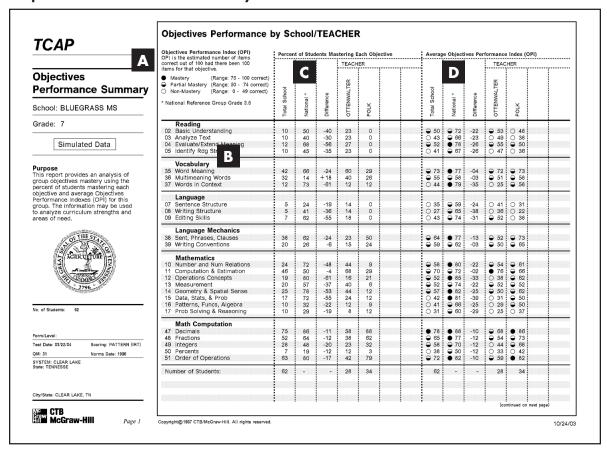
## **Objectives Performance Report**



The Objectives Performance Report helps teachers plan for individual and group instruction by presenting student attainment of the objectives measured by the tests. For each objective, the report shows each student's mastery level and summarizes the performance of the group.

- The Objectives Performance Index (OPI) specifies the student's level of mastery of the objectives. It is an estimate of the number of test items a student could be expected to answer correctly had 100 such items been taken.
- The Objectives column lists the objectives of each content area.
- The average OPIs for this group of students, as well as the national average OPIs based on the norm group, are shown. The difference between the local group and the national group is also shown. This information will be useful in establishing instructional priorities.
- The individual results columns report each student's degree of mastery on each objective. As shown in the key, a completely filled circle represents mastery, a half-filled circle represents partial mastery, and an open circle represents non-mastery.

## **Objectives Performance Summary**



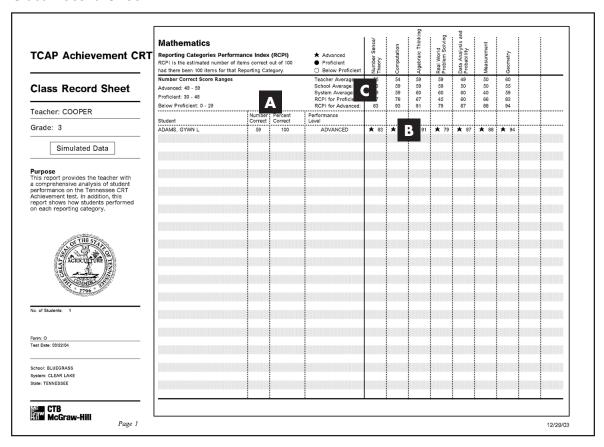
The Objectives Performance Summary summarizes the scores of a group of students and indicates their mastery of the objectives measured by the test.

- The Objectives Performance Index (OPI) specifies the group's level of mastery of the objectives. It is an estimate of the average number of test items this group of students could be expected to answer correctly had 100 such items been taken.
- The objectives measured within each content area are listed by number and title.
- The percentage of students mastering each objective is shown for the total school, the National Reference Group, and for each class within the school. The number of students in the group is shown at the bottom of each column.
- The Average Objectives Performance Index (OPI) is shown on the right side of the report for the same groupings as the Percent of Students Mastering Each Objective shown to the left.

Additional assistance with understanding and using the results of this report is provided by the information on page 2 of the report, which contains sections on General Interpretation and Observations.

#### CRITERION-REFERENCED REPORTS—PHASE I

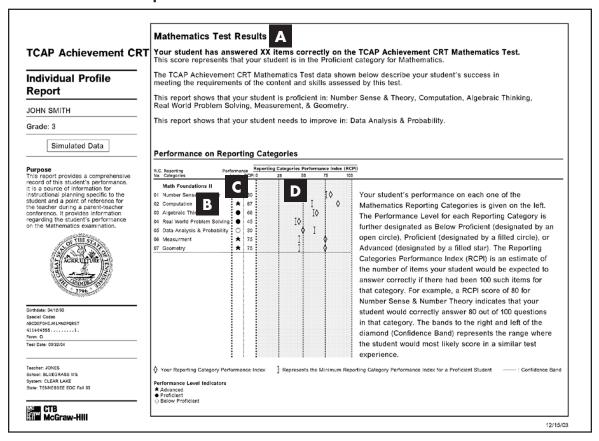
### **Class Record Sheet**



The Class Record Sheet for the criterion-referenced component of the test helps teachers plan for individual and group instruction by presenting student attainment of the objectives measured by the test. These objectives are defined in the State of Tennessee Curriculum Content Standards. From these objectives, Performance Indicators were written to describe how the objectives would be measured. On the TCAP Achievement Test, each test item is directly linked to a Performance Indicator. Performance Indicators are clustered into Reporting Categories for the reports described in this document.

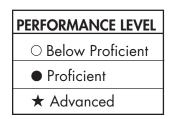
- This identifies the Number Correct and Percent Correct scores for each student (based on the total test performance) and also the overall Performance Level for the test.
- For each Reporting Category, the report shows the student's mastery level as well as the RCPI attained. The Reporting Category Performance Index (RCPI) is the estimated number of test items a student could be expected to answer correctly had 100 such items been taken for that reporting category.
- Also provided as a comparative point of reference is the average RCPI by teacher, school, and system. This section also identifies the RCPI target score for proficient and advanced.

## **Individual Profile Report**



The Individual Profile Report (IPR) is intended for parents and teachers. The IPR identifies areas of student strengths and needs in each Reporting Category and can be used to assist in evaluation and remediation.

- Indicates number of items answered correctly
- Each Reporting Category is listed for the content area covered.
- A symbol that indicates the student's level of proficiency (Performance Level) is shown on the report.



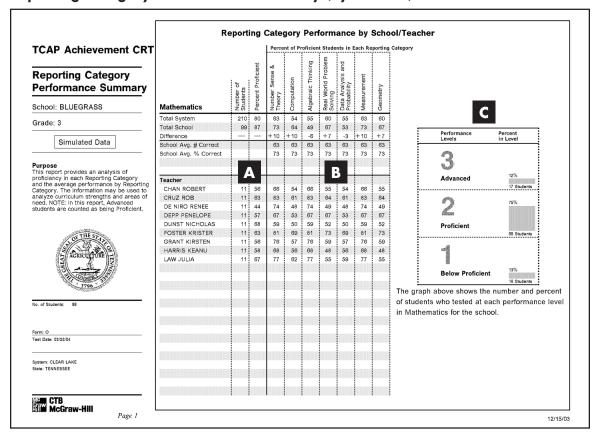
# Individual Profile Report, cont'd.

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The Reporting Category Performance Index (RCPI) scale runs from "0" to "100", indicating the degree of proficiency a student has reached in each Reporting Category. The RCPI is an estimate of the number of items the student could be expected to answer correctly if the student had taken 100 similar items measuring that objective.

The RCPI obtained in each category is represented by a diamond symbol on the graph. The bands to the left and right of the diamonds (Confidence Bands) represent the range where the student would most likely score in a similar test experience. The shorter the band, the more confidence one can have in the RCPI.

# Reporting Category Performance Summary (by Teacher)



The Reporting Category Performance Summary (by Teacher) report provides an analysis of proficiencies in each Reporting Category.

- The number of students proficient on the test for each teacher is indicated.
- Shown is the average, by teacher, of students' performance in each Reporting Category. Comparisons may also be made to school and system results.
- The graph on the right shows the number and percent of students who tested at each performance level.